

SECTION 13865A

APPENDIX A - AUTOMATIC CONTROL VALVES

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AUTOMATIC CONTROL VALVE SCHEDULE	

GENERAL CONTROL VALVE TECHNICAL SPECIFICATION SHEET

AUTOMATIC HIGH PERFORMANCE BUTTERFLY VALVE: TYPE **HPBV-1**

SEE THE AUTOMATIC CONTROL VALVE SCHEDULE FOR SPECIFIC TECHNICAL REQUIREMENTS.

1. GENERAL:	
PROVIDE AN AUTOMATIC ECCENTRICALLY-ROTATING DISC, HIGH PERFORMANCE BUTTERFLY VALVE COMPLETE WITH AUTOMATIC ACTUATOR AND AUXILIARY CONTROL DEVICES AS INDICATED WHICH MEETS ALL OF THE SERVICE CONDITIONS, VALVE SIZING PARAMETERS AND CRITERIA INDICATED ON THE AUTOMATIC CONTROL VALVE SCHEDULE.	
2. TECHNICAL:	
VALVE BODY AND ACTUATOR ASSEMBLY	
VALVE TYPE:	HIGH PERFORMANCE BUTTERFLY.
CONNECTION:	WAFER
BODY MATERIAL:	CARBON STEEL
BODY RATING:	ANSI 150
BEARING MATERIAL:	TFE OR TFE LINED.
DISC MATERIAL:	316 STAINLESS STEEL.
SHAFT:	ONE PIECE, SPLINED CONNECTION.
SHAFT MATERIAL:	17-4PH STAINLESS STEEL.
SEAT MATERIAL:	PROVIDE AS INDICATED
SEAT LEAKAGE:	SOFT SEAT: ANSI CLASS VI.
FLOW CHARACTERISTIC:	EQUAL PERCENTAGE (INHERENT).
C _v RATIO:	100:1 OR GREATER (INHERENT).
ACTUATOR:	ROTORK, ELECTRIC 460VAC 30 MOTOR, ACTUATOR MOUNTED "LOCAL-OFF-REMOTE" SELECTOR SWITCH AND "OPEN", "CLOSE" AND "STOP" PUSH BUTTONS.
FAILURE POSITION:	FAIL INTERMEDIATE
HANDWHEEL:	SIDE-MOUNTED, DE-CLUTCHABLE.
3. AUXILIARY CONTROL DEVICES:	
PROVIDE AUXILIARY CONTROL DEVICES AS INDICATED ON THE AUTOMATIC CONTROL VALVE SCHEDULE.	
4. MANUFACTURER:	
A. FISHER CONTROLS, 8500 SERIES CONTROL VALVE.	
B. MASONEILAN, 39000 SERIES CONTROL VALVE.	
C. VALTEK, VALDISK SERIES CONTROL VALVE.	
D. NELES JAMESBURY	SERIES 800 (SOFT SEAT)

GENERAL CONTROL VALVE TECHNICAL SPECIFICATION SHEET

AUTOMATIC HIGH PERFORMANCE BUTTERFLY VALVE: TYPE **HPBV-2**

SEE THE AUTOMATIC CONTROL VALVE SCHEDULE FOR SPECIFIC TECHNICAL REQUIREMENTS.

1. GENERAL:	
PROVIDE AN AUTOMATIC ECCENTRICALLY-ROTATING DISC, HIGH PERFORMANCE BUTTERFLY VALVE COMPLETE WITH AUTOMATIC ACTUATOR AND AUXILIARY CONTROL DEVICES AS INDICATED WHICH MEETS ALL OF THE SERVICE CONDITIONS, VALVE SIZING PARAMETERS AND CRITERIA INDICATED ON THE AUTOMATIC CONTROL VALVE SCHEDULE.	
2. TECHNICAL:	VALVE BODY AND ACTUATOR ASSEMBLY
VALVE TYPE:	HIGH PERFORMANCE BUTTERFLY.
CONNECTION:	WAFER
BODY MATERIAL:	CARBON STEEL
BODY RATING:	ANSI 150
BEARING MATERIAL:	TFE OR TFE LINED.
DISC MATERIAL:	316 STAINLESS STEEL.
SHAFT:	ONE PIECE, SPLINED CONNECTION.
SHAFT MATERIAL:	17-4PH STAINLESS STEEL.
SEAT MATERIAL:	PROVIDE AS INDICATED
SEAT LEAKAGE:	SOFT SEAT: ANSI CLASS VI.
FLOW CHARACTERISTIC:	EQUAL PERCENTAGE (INHERENT).
C _v RATIO:	100:1 OR GREATER (INHERENT).
ACTUATOR:	CYLINDER OPERATOR, SPRING RETURN WITH VALVE POSITION INDICATOR.
FAILURE POSITION:	AS INDICATED.
HANDWHEEL:	SIDE-MOUNTED, DE-CLUTCHABLE.
3. AUXILIARY CONTROL DEVICES:	
PROVIDE AUXILIARY CONTROL DEVICES AS INDICATED ON THE AUTOMATIC CONTROL VALVE SCHEDULE.	
4. MANUFACTURER:	
A. FISHER CONTROLS, 8500 SERIES CONTROL VALVE.	
B. MASONEILAN, 39000 SERIES CONTROL VALVE.	
C. VALTEK, VALDISK SERIES CONTROL VALVE.	
D. NELES JAMESBURY	SERIES 800 (SOFT SEAT)

GENERAL CONTROL VALVE TECHNICAL SPECIFICATION SHEET

AUTOMATIC ECCENTRICALLY ROTATING PLUG VALVE (TYPE ERPV-1)

SEE THE AUTOMATIC CONTROL VALVE SCHEDULE FOR SPECIFIC TECHNICAL REQUIREMENTS:

1. GENERAL	
PROVIDE AN AUTOMATIC STRAIGHT-THROUGH, ECCENTRICALLY ROTATING PLUG VALVE COMPLETE WITH AUTOMATIC ACTUATOR AND AUXILIARY CONTROL DEVICES AS INDICATED WHICH MEETS ALL OF THE SERVICE CONDITIONS, VALVE SIZING PARAMETERS AND CRITERIA INDICATED ON THE AUTOMATIC CONTROL VALVE SCHEDULE.	
2. TECHNICAL:	
VALVE BODY AND ACTUATOR ASSEMBLY	VALVE BODY AND ACTUATOR ASSEMBLY
VALVE TYPE:	ECCENTRICALLY ROTATING PLUG VALVE
CONNECTION	(THREADED) (FLANGLESS) (FLANGED)
LINE BOLTS:	MANUFACTURERS STANDARD
BODY MATERIAL:	CARBON STEEL OR STAINLESS STEEL AS INDICATED.
BODY RATING:	ANSI 150, 300 OR 600 AS INDICATED.
PLUG TYPE:	SELF-ALIGNING
PLUG MATERIAL	300 SERIES STAINLESS STEEL
SHAFT:	ONE PIECE, SPLINED CONNECTION
SHAFT MATERIAL:	17-4PH STAINLESS STEEL
BEARING MATERIAL	TFE OR TFE LINED
SEAT MATERIAL:	PROVIDE AS INDICATED
	METAL SEAT: 316 SS
	SOFT SEAT: TFE
SEAT LEAKAGE:	METAL SEAT: ANSI CLASS IV
	SOFT SEAT: ANSI CLASS VI
FLOW CHARACTERISTIC:	EQUAL PERCENTAGE (INHERENT)
C _v RATIO:	100:1 OR GREATER (INHERENT)
ACTUATOR:	PNEUMATIC SPRING AND DIAPHRAGM WITH VALVE POSITION INDICATOR.
FAILURE POSITION:	AS INDICATED.
HANDWHEEL:	SIDE-MOUNTED, DECLUTCHABLE.
3. AUXILIARY CONTROL DEVICES:	
A. PROVIDE AS INDICATED ON THE AUTOMATIC CONTROL VALVE SCHEDULE	
B. PROVIDE INTELLIGENT POSITIONER WITH HART INTERFACE.	
C. PROVIDE ADJUSTABLE OPEN AND CLOSE STROKING SPEED CONTROLS AND ANY AUXILIARY DEVICES NECESSARY TO PROVIDE THE STROKING SPEEDS AS SCHEDULED. PROVIDE LOCK-NUT LOCKING SPEED CONTROL VALVES. PROVIDE VOLUME TANKS WHERE NECESSARY FOR SPEED CONTROL ADJUSTMENT. SPEED CONTROLS SHALL PROVIDE SMOOTH CONTINUOUS VALVE STROKING WITHOUT DEADTIME, SUDDEN MOVEMENT, OR JERKING DURING VALVE STROKING.	
4. MANUFACTURER:	
A. FISHER CONTROLS, V500 SERIES CONTROL VALVE.	
B. CASHCO, RANGER QCT	
C. MASONEILAN, 35002 SERIES CONTROL VALVE	
D. NELES JAMESBURY FINETROL SERIES.	

GENERAL CONTROL VALVE TECHNICAL SPECIFICATION SHEET

AUTOMATIC TWO POSITION BALL VALVE: TYPE **TPBV-1**

SEE THE AUTOMATIC CONTROL VALVE SCHEDULE FOR SPECIFIC TECHNICAL REQUIREMENTS.

1. GENERAL:	
PROVIDE AN AUTOMATIC TWO-POSITION BALL VALVE COMPLETE WITH AUTOMATIC ACTUATOR AND AUXILIARY CONTROL DEVICES AS INDICATED WHICH MEETS ALL OF THE SERVICE CONDITIONS, VALVE SIZING PARAMETERS AND CRITERIA INDICATED ON THE AUTOMATIC CONTROL VALVE SCHEDULE. PROVIDE A COMPLETE SPECIFICATION SHEET WITH EACH CONTROL VALVE.	
2. TECHNICAL:	VALVE BODY AND ACTUATOR ASSEMBLY
VALVE TYPE:	TWO PIECE BODY AND BALL
CONNECTION:	THREADED NPT
BODY MATERIAL:	CARBON STEEL
MINIMUM BODY RATING:	150 PSI AT 366 DEG.F. WSP, 600 PSI AT 100 DEG.F. CWP.
SEATS:	TFE FILLED
SEALS:	TFE
LEAKAGE:	SOFT SEAT: ANSI CLASS VI
ACTUATOR:	PROVIDE 120VAC ELECTRIC OR PNEUMATIC, AS LISTED IN THE VALVE SCHEDULE.
3. AUXILIARY CONTROL DEVICES:	
A. LIMIT SWITCHES:	ADJUSTABLE OPEN AND CLOSED LIMIT SWITCHES SHALL EACH BE SPDT WITH 10 AMP CONTACTS AT 120 VAC.
B. PROVIDED AS INDICATED ON THE AUTOMATIC CONTROL VALVE SCHEDULE.	
C. PROVIDE ADJUSTABLE OPEN AND CLOSE STROKING SPEED CONTROLS AND ANY AUXILIARY DEVICES NECESSARY TO PROVIDE THE STROKING SPEEDS AS SCHEDULED. SPEED CONTROLS SHALL PROVIDE SMOOTH CONTINUOUS VALVE STROKING WITHOUT DEADTIME, SUDDEN MOVEMENT, OR JERKING DURING VALVE STROKING.	
4. MANUFACTURER:	
A. JAMESBURY "CLINCHER TYPE 2000"(1/4 THRU 2 INCHES)	
B. WORCESTER CONTROLS	

GENERAL CONTROL VALVE TECHNICAL SPECIFICATION SHEET

COMMERCIAL QUALITY AUTOMATIC CONTROL VALVE: TYPE **CCV-1** THIS SPECIFICATION APPLIES TO GENERAL-PURPOSE, COMMERCIAL-QUALITY, AUTOMATIC CONTROL VALVES.

1. GENERAL:	
<p>PROVIDE AN AUTOMATIC, STRAIGHT-THROUGH OR THREE-WAY BRASS, BRONZE OR CAST IRON-BODIED, GLOBE-STYLE CONTROL VALVE ASSEMBLY COMPLETE WITH AUTOMATIC ACTUATOR AND AUXILIARY CONTROL DEVICES AS INDICATED, WHICH MEETS ALL OF THE SERVICE CONDITIONS, VALVE SIZING GUIDELINES AND OTHER CRITERIA REQUIRED FOR THE APPLICATION. THE OPERATING AND CLOSE-OFF PRESSURE DROPS THROUGH THE VALVE SHALL NOT EXCEED THE MANUFACTURER'S RECOMMENDATIONS. THE CONTROL VALVE BODY RATING SHALL MEET OR EXCEED THE TEMPERATURE/PRESSURE RATINGS OF THE PIPING SYSTEM IN WHICH THE VALVE IS INSTALLED. THE VALVE BODY PIPING CONNECTION SHALL BE COMPATIBLE WITH THE ASSOCIATED PIPING SYSTEM.</p>	
2. TECHNICAL:	VALVE BODY AND ACTUATOR ASSEMBLY
VALVE TYPE:	GLOBE-STYLE
CONNECTION:	SCREWED: 1/2" THROUGH 2" FLANGED: 2-1/2 AND LARGER
BODY MATERIAL:	BRASS, BRONZE OR CAST IRON, BASED ON REQUIRED VALVE SIZE AND BODY RATING
PACKING MATERIAL:	TFE OR ELASTOMER, NO ASBESTOS
TRIM MATERIAL:	STAINLESS STEEL.
SEAT RING:	REPLACEABLE ON 2-1/2" AND LARGER VALVES.
FLOW CHARACTERISTIC:	EQUAL PERCENTAGE (INHERENT)
C _v RATIO:	25:1 (MINIMUM)
ACTUATOR:	PNEUMATIC SPRING AND DIAPHRAGM OR ELECTRIC AS INDICATED. MAXIMUM ALLOWABLE CONTROL AIR PRESSURE FOR PNEUMATIC ACTUATORS IS 25 PSIG.
3. AUXILIARY CONTROL DEVICES:	
<p>A. PROVIDE AUXILIARY CONTROL DEVICES AS INDICATED OR REQUIRED FOR THE APPLICATION</p>	
4. CONTROL VALVE SIZING PARAMETERS:	
<p>A. UNLESS OTHERWISE INDICATED, USE THE FOLLOWING CONTROL VALVE SIZING PARAMETERS TO SIZE AND SELECT THE AUTOMATIC CONTROL VALVES PROVIDED UNDER THIS SPECIFICATION.</p>	
5. MANUFACTURER:	
A. HONEYWELL	
B. JOHNSON CONTROLS	
C. SIEMENS	

END OF SECTION

Revision History	
Date	Rev. No.
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